ODS 506

# OBSTRUCTION DATA SHEET

**ODS 506**
**CHADRON MUNICIPAL AIRPORT**
**CHADRON, NEBRASKA**

**DIGITIZED FROM**

**OC 506**
**SURVEYED JUNE 1989**
**5TH EDITION**

PREPARED AND DISTRIBUTED BY
THE NATIONAL OCEAN SERVICE
U.S. DEPARTMENT OF COMMERCE
FOR THE FEDERAL AVIATION ADMINISTRATION

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# OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA Nr. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS (and OC) depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the physical end and threshold of Runway 9R. Objects in the Runway 27L approach or primary are listed with Runway 27L. (Objects in the common 9R/27L primary area are listed with both runways.)

2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

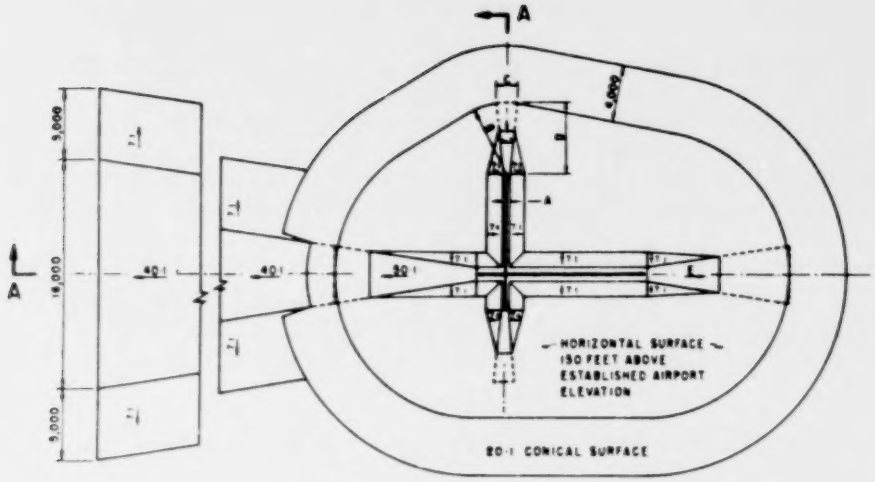
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows (see footnote 2 on page 3):

A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C ........ Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D ........ Nonutility runway - nonprecision instrument approach with visibility minimums as low as 3/4 mile
PIR ..... Precision instrument runway
SUPLC ... Supplemental C underlying a B(V)

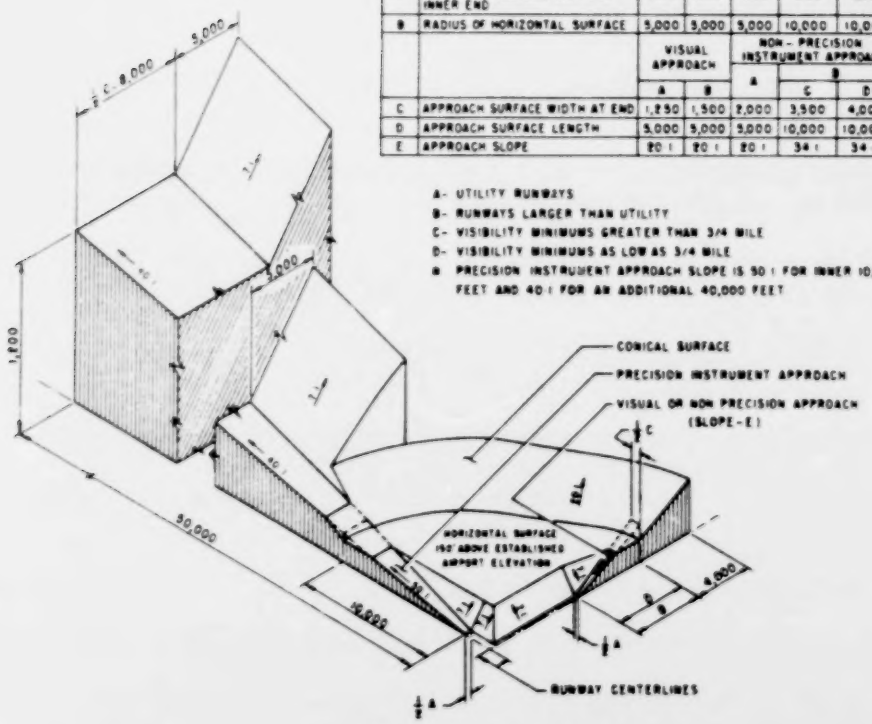
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.




| DIM | ITEM | DIMENSIONAL STANDARDS (FEET) | | | | | |
|---|---|---|---|---|---|---|---|
| | | VISUAL RUNWAY | | NON-PRECISION INSTRUMENT RUNWAY | | | PRECISION INSTRUMENT RUNWAY |
| | | A | B | A | B | | |
| | | | | | C | D | |
| A | WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END | 250 | 500 | 500 | 500 | 1,000 | 1,000 |
| B | RADIUS OF HORIZONTAL SURFACE | 5,000 | 5,000 | 5,000 | 10,000 | 10,000 | 10,000 |
| | | VISUAL APPROACH | | NON-PRECISION INSTRUMENT APPROACH | | | PRECISION INSTRUMENT APPROACH |
| | | | | A | B | | |
| | | A | B | | C | D | |
| C | APPROACH SURFACE WIDTH AT END | 1,250 | 1,500 | 2,000 | 3,500 | 4,000 | 16,000 |
| D | APPROACH SURFACE LENGTH | 5,000 | 5,000 | 5,000 | 10,000 | 10,000 | * |
| E | APPROACH SLOPE | 20:1 | 20:1 | 20:1 | 34:1 | 34:1 | * |

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET




ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

# ANNOTATION OF ODS DATA FORMAT

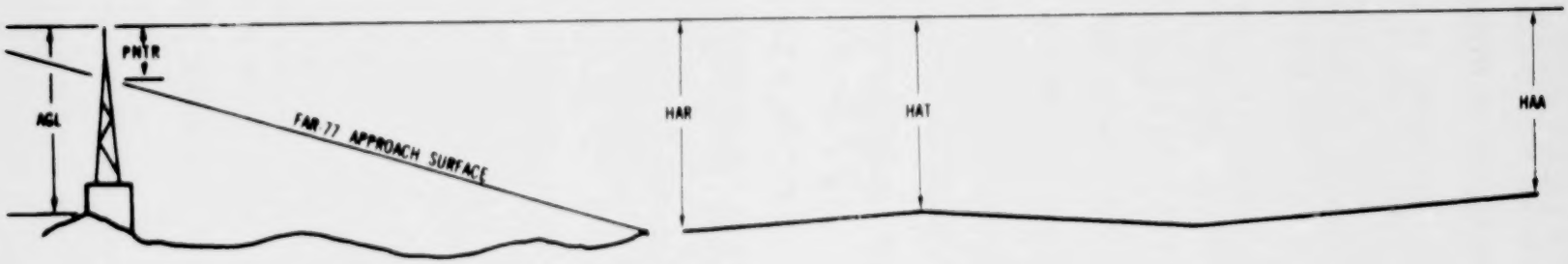
OC XXXX

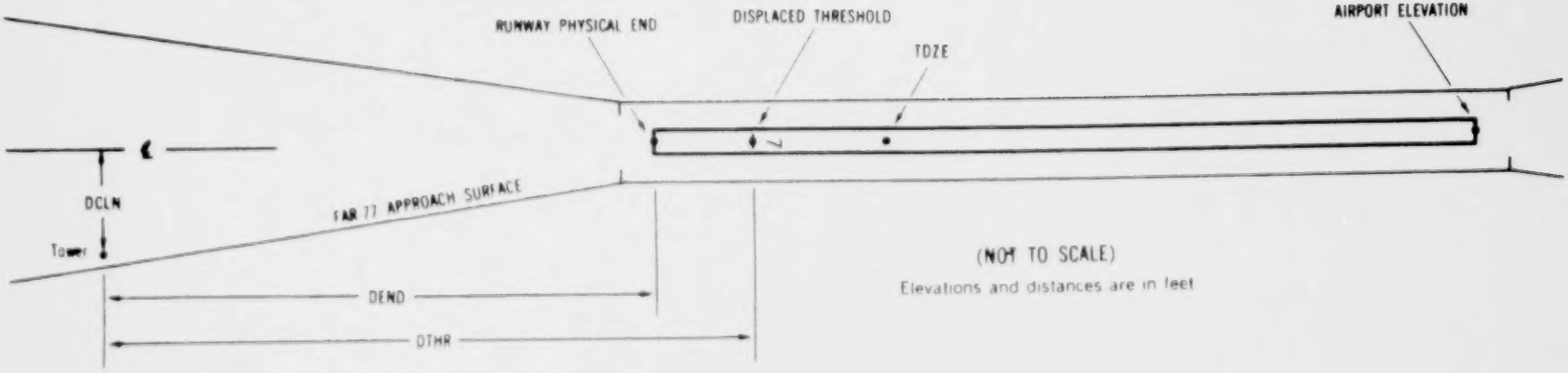
AIRPORT ELEVATION XXXX

X[1] X[2] XXXX/XXXX[3] XXXXXX.XXX[4] XXXXXXX.XXX[4] XXXXXXX[5] XXXX/XXXX[6] XXXXXX.XXX[7] XXXXXXX.XXX[7]

| OBJECT | LAT | LONG | A[8] | ELEV[9] | AGL[10] | HAR[11] | HAT[11] | HAA[11] | DEND[12] | DTHR[12] | DCLN[12] | PNTR[13] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XXXXXXXXXX | XXXXXX.XXX | XXXXXXX.XXX | XX | XXXX | XXXX | XXX | XXX | XXX | XXXXX | XXXXX | XXXX | XXXX |
| XXXXXXXXXX | XXXXXX.XXX | XXXXXXX.XXX | XX | XXXX | XXXX | XXX | XXX | XXX | XXXXX | XXXXX | XXXX | XXXX |

**********




(NOT TO SCALE)

Elevations and distances are in feet

## EXPLANATION OF FOOTNOTES

[1] Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary area of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.

[2] For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed.)

[3] Reference runway approach physical end elevation/touchdown zone elevation

[4] Latitude and longitude of reference runway approach physical end

[5] Reference runway geodetic azimuth reckoned clockwise from south

[6] Reference runway displaced threshold elevation/touchdown zone elevation

[7] Latitude and longitude of reference runway displaced threshold

[8] Accuracy Code:

| Horizontal | Vertical |
|---|---|
| 1 = 20 | A = 2 |
| 2 = 40 | B = 5 |
| | C = 20 |

[9] Mean Sea Level (MSL) elevation at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.

[10] Height above ground level (AGL). AGLs are provided only for those objects appearing on the OC that are equal to, or greater than, 200 feet AGL. AGL accuracy is ±10 feet.

[11] HAA - Height above airport
HAR - Height above reference runway approach physical end
HAT - Height above reference runway touchdown zone elevation

[12] DEND - Distance along reference runway centerline from point perpendicular to object to reference runway approach physical end
DTHR - Distance along reference runway centerline from point perpendicular to object to reference runway threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft.

A negative value for DEND or DTHR indicates object is in primary area on roll-out side of zero distance point.

[13] PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

OC0506

AIRPORT ELEVATION 3296

2 PIR 3296/3296 424958.784N 1030559.518W 2150519

| OBJECT | LAT | LONG | A | ELEV | AGL | HAR | HAT | HAA | DEND | DTHR | DCLN | PNTR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FENCE | 425047.02 | 1030509.18 | 1A | 3268 | | -28 | -28 | -28 | -6152 | | 261R | 2 |
| TREE | 425050.38 | 1030517.26 | 1A | 3284 | | -12 | -12 | -12 | -6084 | | 427L | 18 |
| TREE | 425048.94 | 1030516.57 | 1A | 3281 | | -15 | -15 | -15 | -5994 | | 301L | 15 |
| TREE | 425043.93 | 1030509.22 | 1A | 3288 | | -8 | -8 | -8 | -5894 | | 439R | 22 |
| FENCE | 425046.60 | 1030519.52 | 1A | 3269 | | -27 | -27 | -27 | -5674 | | 344L | 2 |
| SIGN ON FENCE | 425044.84 | 1030520.30 | 1A | 3272 | | -24 | -24 | -24 | -5495 | | 290L | 4 |
| TREE | 425039.21 | 1030514.18 | 1A | 3291 | | -5 | -5 | -5 | -5291 | | 411R | 23 |
| TREE | 425035.00 | 1030516.51 | 1A | 3302 | | 6 | 6 | 6 | -4842 | | 514R | 31 |
| TREE | 425040.33 | 1030527.70 | 1A | 3291 | | -5 | -5 | -5 | -4805 | | 479L | 20 |
| GROUND | 425032.44 | 1030521.41 | 1A | 3276 | | -20 | -20 | -20 | -4420 | | 365R | 2 |
| FENCE | 425034.74 | 1030529.95 | 1A | 3281 | | -15 | -15 | -15 | -4245 | | 290L | 6 |
| GROUND | 425033.26 | 1030534.80 | 1A | 3282 | | -14 | -14 | -14 | -3914 | | 499L | 4 |
| TREE | 425012.73 | 1030542.10 | 1A | 3297 | | 1 | 1 | 1 | -1902 | | 250R | 13 |
| GROUND | 425005.37 | 1030545.78 | 1A | 3287 | | -9 | -9 | -9 | -1134 | | 454R | 1 |
| GROUND | 424947.30 | 1030614.21 | 1A | 3323 | | 27 | 27 | 27 | 1580 | | 227L | -1 |
| ROAD(N) | 424942.60 | 1030610.32 | 1A | 3331 | | 35 | 35 | 35 | 1803 | | 283R | 3 |
| GROUND | 424922.30 | 1030618.99 | 1A | 3369 | | 73 | 73 | 73 | 3857 | | 936R | 0 |
| FENCE | 424913.27 | 1030627.63 | 1A | 3391 | | 95 | 95 | 95 | 4975 | | 934R | 0 |
| GROUND | 424911.89 | 1030625.89 | 1A | 3392 | | 96 | 96 | 96 | 5014 | | 1121R | 0 |
| FENCE | 424901.58 | 1030651.10 | 1A | 3429 | | 133 | 133 | 133 | 6948 | | 182R | -2 |
| GROUND | 424858.31 | 1030645.53 | 1A | 3438 | | 142 | 142 | 142 | 6981 | | 713R | 6 |
| POLE | 424850.23 | 1030648.36 | 1A | 3458 | | 162 | 162 | 162 | 7772 | | 1011R | 11 |
| POLE | 424842.58 | 1030725.48 | 1A | 3482 | | 186 | 186 | 186 | 9995 | | 809L | -10 |

AIRPORT ELEVATION 3296

20 C 3266/3282 425047.284N 1030513.214W 0350550

| OBJECT | LAT | LONG | A | ELEV | AGL | HAR | HAT | HAA | DEND | DTHR | DCLN | PNTR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GROUND | 425005.37 | 1030545.78 | 1A | 3287 | | 21 | 5 | -9 | -4867 | | 454L | 1 |
| TREE | 425012.73 | 1030542.10 | 1A | 3297 | | 31 | 15 | 1 | -4099 | | 250L | 13 |
| GROUND | 425033.26 | 1030534.80 | 1A | 3282 | | 16 | 0 | -14 | -2086 | | 499R | 4 |
| FENCE | 425034.74 | 1030529.95 | 1A | 3281 | | 15 | -1 | -15 | -1756 | | 290R | 6 |
| GROUND | 425032.44 | 1030521.41 | 1A | 3276 | | 10 | -6 | -20 | -1581 | | 365L | 2 |
| TREE | 425040.33 | 1030527.70 | 1A | 3291 | | 25 | 9 | -5 | -1196 | | 479R | 20 |
| TREE | 425035.00 | 1030516.51 | 1A | 3302 | | 36 | 20 | 6 | -1159 | | 514L | 31 |
| TREE | 425039.21 | 1030514.18 | 1A | 3291 | | 25 | 9 | -5 | -710 | | 411L | 23 |
| SIGN ON FENCE | 425044.84 | 1030520.30 | 1A | 3272 | | 6 | -10 | -24 | -505 | | 290R | 4 |
| FENCE | 425046.60 | 1030519.52 | 1A | 3269 | | 3 | -13 | -27 | -327 | | 344R | 2 |
| TREE | 425043.93 | 1030509.22 | 1A | 3288 | | 22 | 6 | -8 | -107 | | 439L | 22 |
| TREE | 425048.94 | 1030516.57 | 1A | 3281 | | 15 | -1 | -15 | -6 | | 301R | 15 |
| TREE | 425050.38 | 1030517.26 | 1A | 3284 | | 18 | 2 | -12 | 83 | | 427R | 18 |
| FENCE | 425047.02 | 1030509.18 | 1A | 3268 | | 2 | -14 | -28 | 151 | | 261L | 2 |
| FENCE | 425048.10 | 1030508.18 | 1A | 3270 | | 4 | -12 | -26 | 283 | | 259L | 2 |
| TREE | 425047.55 | 1030505.02 | 1A | 3298 | | 32 | 16 | 2 | 373 | | 484L | 27 |
| TREE | 425052.68 | 1030512.02 | 1A | 3280 | | 14 | -2 | -16 | 498 | | 242R | 5 |
| TREE | 425055.68 | 1030508.70 | 1A | 3286 | | 20 | 4 | -10 | 889 | | 214R | 0 |
| TREE | 425055.88 | 1030502.85 | 1A | 3294 | | 28 | 12 | -2 | 1156 | | 131L | 0 |
| TREE | 425100.58 | 1030456.61 | 1A | 3311 | | 45 | 29 | 15 | 1812 | | 238L | -2 |
| TREE | 425105.65 | 1030457.61 | 1A | 3309 | | 43 | 27 | 13 | 2190 | | 118R | -16 |

11 A(V) 3292/3292 425017.124N 1030613.343W 3045528

| OBJECT | LAT | LONG | A | ELEV | AGL | HAR | HAT | HAA | DEND | DTHR | DCLN | PNTR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TREE | 425025.36 | 1030633.79 | 1A | 3326 | | 34 | 34 | 30 | 1726 | | 188R | -42 |
| GROUND | 425043.67 | 1030702.14 | 1A | 3399 | | 107 | 107 | 103 | 4520 | | 122L | -109 |

OC0506

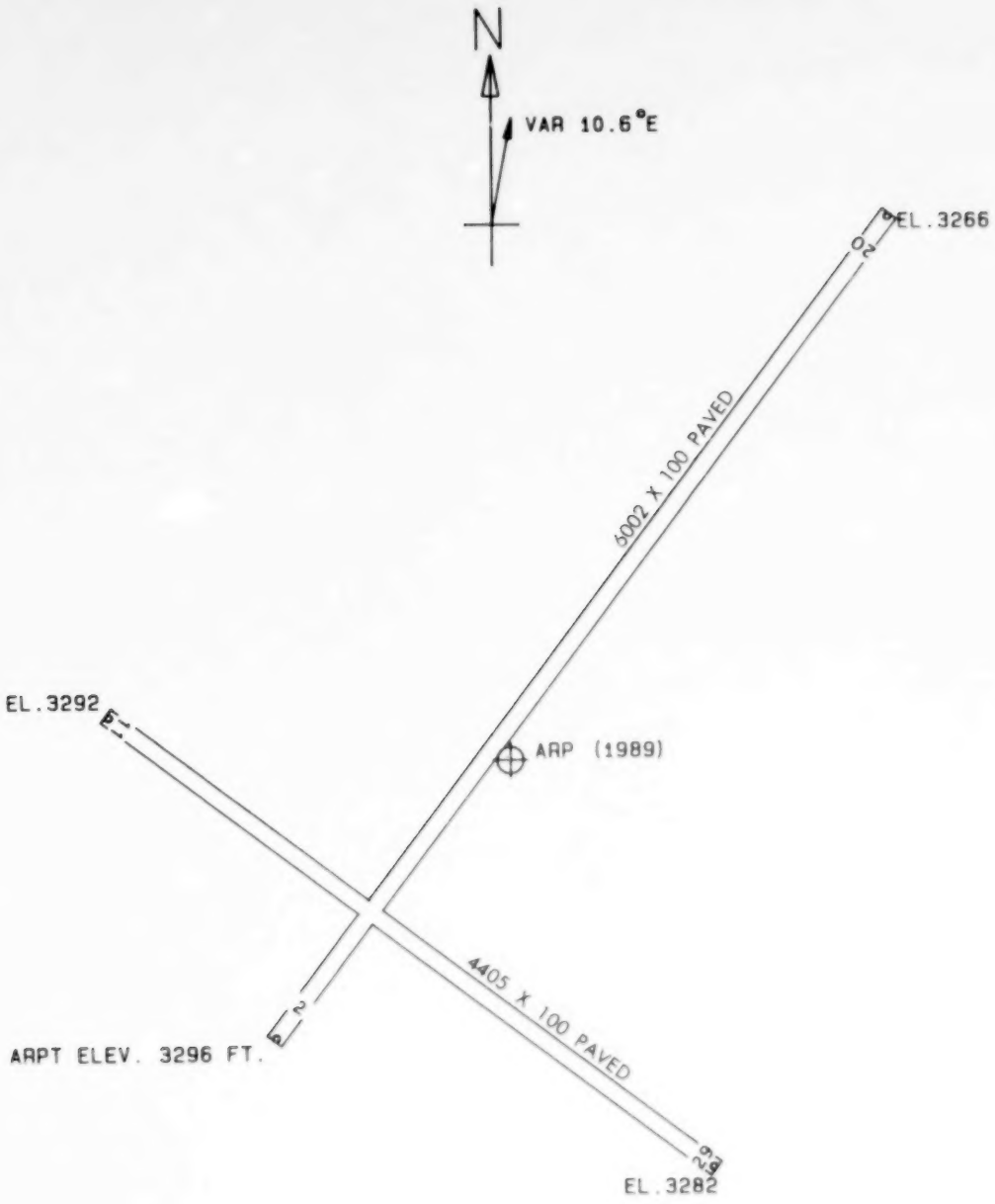
AIRPORT ELEVATION 3296

29 A(V) 3282/3288 424952.214N 1030524.880W 1245601

| OBJECT | LAT | LONG | A | ELEV | AGL | HAR | HAT | HAA | DEND | DTHR | DCLN | PNTR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FENCE | 424950.22 | 1030516.99 | 1A | 3294 | | 12 | 6 | -2 | 598 | | 172R | -8 |
| FENCE | 424948.73 | 1030518.28 | 1A | 3290 | | 8 | 2 | -6 | 606 | | 8L | -12 |
| ROAD (N) | 424942.35 | 1030505.85 | 1A | 3319 | | 37 | 31 | 23 | 1735 | | 7L | -40 |
| ROAD (N) | 424942.30 | 1030457.94 | 1A | 3333 | | 51 | 45 | 37 | 2220 | | 327R | -50 |

ARP 425015.261N 1030541.762W

| OBJECT | LAT | LONG | A | ELEV | AGL | HAA | MAG BEARING | DISTANCE |
|---|---|---|---|---|---|---|---|---|
| OL ON LIGHTED WINDSOCK | 424956.02 | 1030549.86 | 1A | 3306 | | 10 | 186 37 | 2039 |
| TREE | 425022.13 | 1030614.85 | 1A | 3332 | | 36 | 275 9 | 2561 |
| TREE | 425033.43 | 1030517.33 | 1A | 3317 | | 21 | 34 6 | 2588 |
| TREE | 425033.64 | 1030514.34 | 1A | 3346 | | 50 | 37 5 | 2764 |
| TREE | 425036.18 | 1030513.30 | 1A | 3337 | | 41 | 34 26 | 2997 |
| TREE | 425043.90 | 1030526.70 | 1A | 3321 | | 25 | 10 34 | 3110 |
| ROD ON OL AIRPORT BEACON | 424943.65 | 1030533.26 | 1A | 3363 | | 67 | 158 12 | 3263 |
| TREE | 425038.90 | 1030511.63 | 1A | 3330 | | 34 | 32 34 | 3281 |
| TREE | 425052.09 | 1030517.41 | 1A | 3310 | | 14 | 15 21 | 4146 |
| TREE | 425026.01 | 1030645.66 | 1A | 3327 | | 31 | 272 17 | 4884 |
| GROUND | 425100.58 | 1030630.67 | 1B | 3394 | | 98 | 310 57 | 5859 |
| GROUND | 425103.56 | 1030644.07 | 1B | 3394 | | 98 | 305 53 | 6742 |
| GROUND | 425100.63 | 1030718.58 | 1B | 3424 | | 128 | 291 54 | 8551 |
| POLE | 424850.03 | 1030602.10 | 1B | 3466 | | 170 | 179 22 | 8761 |
| GROUND | 425047.34 | 1030734.39 | 1B | 3436 | | 140 | 280 34 | 8998 |
| GROUND | 424842.60 | 1030539.33 | 1B | 3507 | | 211 | 168 18 | 9382 |
| POLE | 424850.19 | 1030637.65 | 1B | 3495 | | 199 | 195 13 | 9567 |
| GROUND | 424840.95 | 1030615.83 | 1B | 3519 | | 223 | 184 18 | 9880 |




| TOUCHDOWN ZONE RUNWAY | ELEVATION |
|---|---|
| 2 | 3296 |
| 20 | 3282 |
| 11 | 3292 |
| 29 | 3288 |

CHADRON MUNICIPAL AIRPORT

CHADRON, NEBRASKA

(NOT TO SCALE)